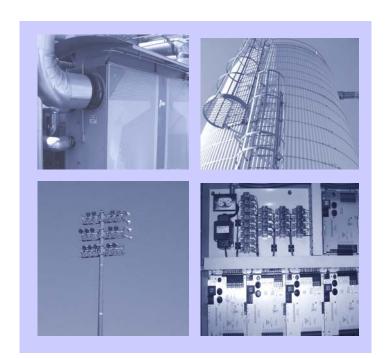
CALIFORNIA ENERGY COMMISSION

SUMMARY OF ENERGY SERVICES COMPANIES SUMMARY OF RESPONSES

STAFF REPORT



January/2005 CEC-400-2005-001



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Executive Summary

Introduction

In June 2004, the California Energy Commission conducted a survey of the Energy Services Companies doing business in California. An Energy Services Company (ESCO) is a firm that can identify and oversee the installation of energy saving projects in their facilities. In addition, an ESCO frequently guarantees that the project's energy cost savings will be adequate to pay the project debt. Public agencies often hire ESCOs to supplement their staff resources in order to expedite the implementation of energy saving projects. In addition, state law (Government Code, Section 4217.10 et seq.) allows public agencies to select an ESCO without competitive bid.

As ESCOs are an important participant in Energy Commission programs, the purposes of the survey are to identify:

- the ESCOs serving California
- the services ESCOs provide
- the services most often requested by customers
- the ESCOs' opinion of the investor-owned utility's Standard Performance Contracting (SPC) Program
- the services the Energy Commission can provide to help ESCOs

Based on the responses, the Energy Commission will update its list of ESCOs serving California customers. Public agencies use this list to identify potential ESCOs for their projects. The list appears in the publication entitled, *How to Hire an Energy Services Company*, publication number P400-00-001D, which can be downloaded at www.energy.ca.gov/reports/efficiency_handbooks/index.html.

Summary of Results

This survey is a follow-up to an ESCO survey taken in May 1999. Compared to 1999, there are now fewer ESCOs doing business in California. Based on the survey responses, there are only 17 firms. This is a sharp decrease compared to 1999, when 50 firms identified themselves as ESCOs, or to our last list update in 2002 when 64 firms indicated that they were ESCOs. Thus, we have seen a major decrease in the number of ESCOs in just five years.

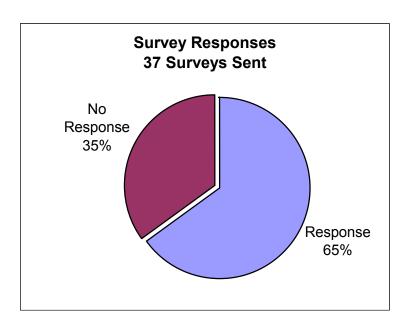
Other results from the survey indicate:

- The three top services that ESCOs provide to customers are project management, energy audits and engineering design.
- ESCO customers most often request comprehensive services that include project management, energy audits, engineering design, design-build projects, project

- commissioning, equipment maintenance, monitoring and verification, and guarantee of energy savings.
- Nearly half of the ESCO customers are public agencies, with schools representing the largest customer.
- The main inducement to getting customers to implement energy efficiency is the availability of financial incentives.
- The respondents indicated that the Standard Performance Contracting (SPC)
 Program, an investor-owned utility incentive program, was a moderately effective
 program.
- One third of the ESCO's projects participated in SPC Program. The average project cost for those SPC participants is \$1.3 million.
- The most desired services that the Energy Commission can offer to help the ESCO industries are: a) provide financial incentives for projects, b) educate customers about ESCOs, and c) provide a referral list to ESCOs of those interested in hiring them or provide interested parties with a list of qualified ESCOs.

Survey Results

Prior to sending the survey, Commission staff contacted 64 firms that previously identified themselves as ESCOs serving California. Upon contacting these firms, it was determined that only 37 may still be doing business as an ESCO. Thus, 37 surveys were sent. A total of 24 surveys were returned. This is an overall return rate of 65 percent [24/37].



The survey consisted of 12 questions. The following sections will address the responses received for each question. The survey is in Appendix A.

ITEM 1: ESCO SERVICES

An Energy Services Company (ESCO) is a single firm that manages and coordinates all phases of an energy project and provides many types of services.

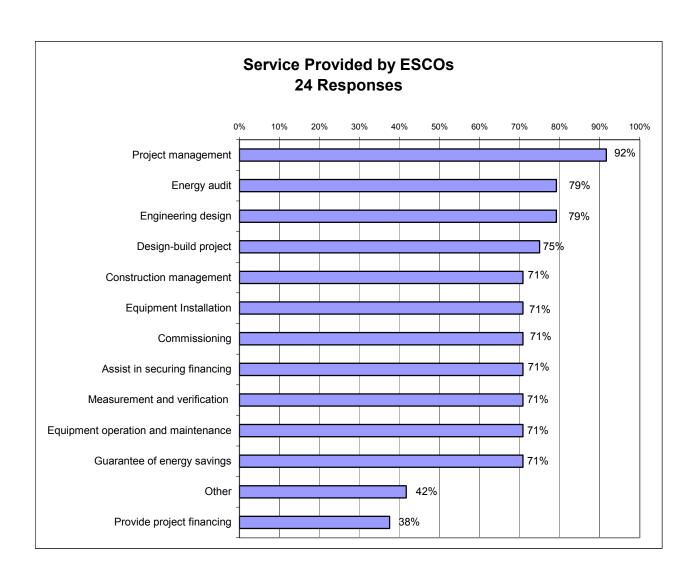
What services does your company provide?

Based on the survey responses, the services provided most often by ESCOs in priority order are:

- project management
- energy audits
- engineering design
- design-build project
- construction management
- equipment installation
- commissioning
- assist in securing financing
- measurement and verification
- equipment operation and maintenance
- guarantee of energy savings
- other services, such as providing HVAC equipment and controls, energy project consultation, third party project evaluation, assistance to utilities and renewable energy project development and design
- provide project financing

The above services are generally offered as a comprehensive package to customers. If customers do not want all the services, they can pick and choose those that are desired for their project. The ESCOs generally do not provide financing but assist in securing project funding. This may be because public agencies qualify for tax exempt financing which would result in lower interest rates than financing provided by ESCOs (non-tax exempt financing).

The following chart shows the ranking of each of the services as reported in the survey.



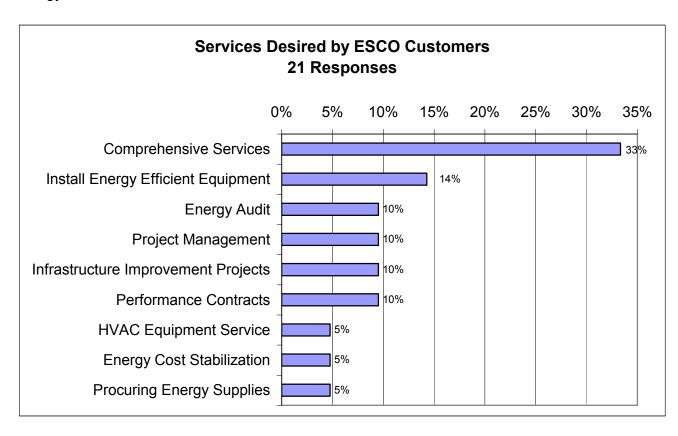
ITEM 2: SERVICES REQUESTED BY CUSTOMERS

What services do your customers most often request?

According to the survey, ESCO customers desire a comprehensive group of services. These services are listed in Item 2 and include the following:

- project management
- energy audit
- engineering design
- construction management
- equipment installation
- design and build projects
- commissioning
- · assist in securing project funding
- measurement and verification
- equipment operation and maintenance
- guarantee of energy savings

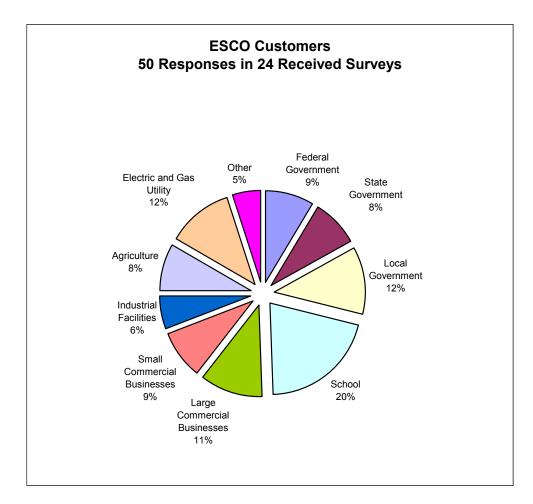
Sometimes, customers do not want the entire comprehensive group of services but only specific ones. The following chart compares the demand for comprehensive services versus individual services, such as only installing energy efficient equipment, or an energy audit.



ITEM 3: ESCO CUSTOMERS

What percentage of your business comes from the following types of customers?

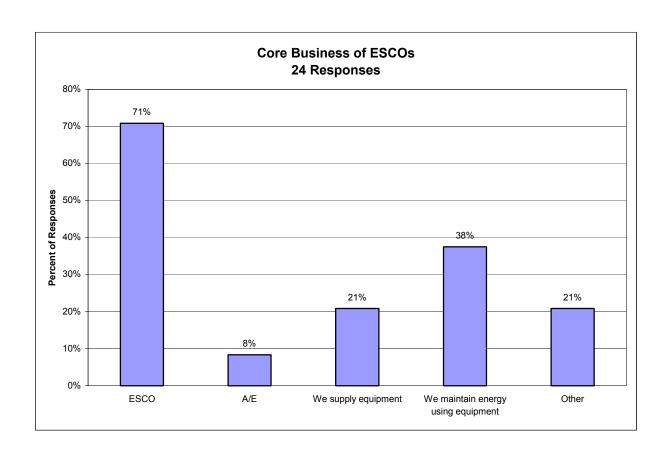
Nearly half of the ESCO customers are public agencies, consisting of schools, local government, state government and the federal government. Of public agencies, schools represent the largest group. The "Other" category includes healthcare and nonprofit organizations.



ITEM 4: ESCO CORE BUSINESS

We are updating our list of ESCOs serving California customers. An ESCO can provide most of the services listed in Item 2 and often guarantees the performance of the project (e.g., the energy cost savings will be adequate to pay the project debt). In contrast, an engineering consultant firm does not guarantee project performance or savings. Check each box that best describes your core business.

Most respondents (16) indicated that their core business is as an ESCO. Others identified themselves as providing mainly architectural or engineering services (A/E), supplying equipment or maintaining equipment. The "Other" category includes electrical contractors, project management firms, design build contractors, and owner/operators of energy systems.



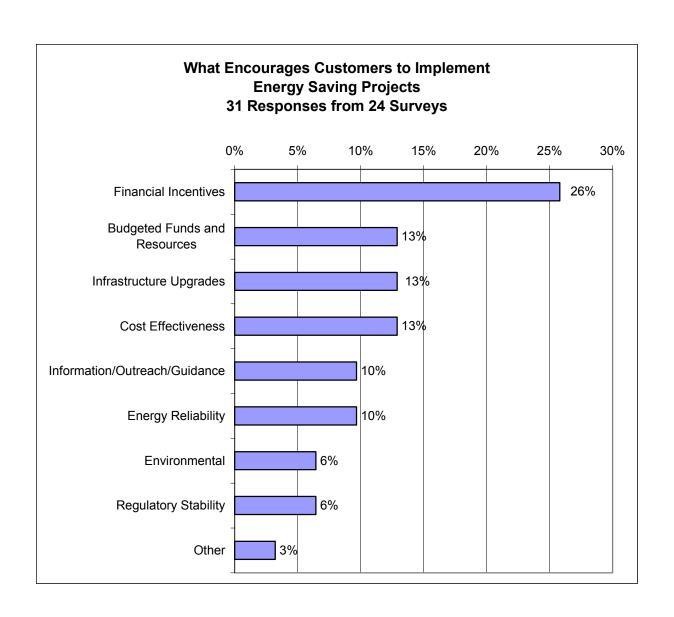
ITEM 5: CUSTOMER INDUCEMENTS

In addition to financing, what would encourage clients to follow through on energy saving or energy generation projects?

Respondents believed that providing financial incentives for energy efficiency projects is the best inducement for getting customers to implement projects. Examples of financial incentives include utility rebates and government subsidies. Other customer inducements include:

- Budgeted funds and resources: If staff resources and budgeted funds are available then customers will implement projects. Some respondents indicated that creative budgeting that provides for equipment ownership alternatives may also help get projects implemented.
- Infrastructure upgrades: Respondents indicated that if customers must replace old equipment and modernize and improve existing facilities, they are more apt to install energy efficient equipment at that time.
- Information/outreach/guidance: Providing customers with information about Government Code Section 4217 and providing direct guidance to customers in implementing projects would encourage project implementation. Government Code Section 4217 allows public agencies to go outside the public bid process when securing energy services.
- Energy reliability: Respondents indicated that customers may be encouraged to implement projects that would limit its reliance on the utility grid.
- Cost effectiveness: Respondents indicated that customers will implement projects with short paybacks, positive cash flows and projects that would reduce operating cost. One respondent indicated that if the unit cost of energy were high, it would encourage more customers to implement projects. Presumably, high energy cost results in cost effective projects with short paybacks and positive cash flows.
- Environmental: Respondents indicated that some customers may be encouraged to implement projects that address environmental issues, and promote sustainable energy solutions and environmental stewardship.
- Regulatory stability: Respondents indicated that unstable energy rates and
 uncertainties associated with regulatory fees and charges all erode customer
 confidence on the energy savings and project payback. One respondent indicated
 that "customers are unable to assess their future energy costs with sufficient
 confidence to install energy efficiency measures...Consequently, longer term
 payback projects with the potential of providing significant energy savings benefits to
 the client, the utility and the state are frequently ignored due to doubts that they will
 have any payback."

The other category in the following chart includes assisting potential self generation customers with natural gas procurement, especially for small projects.

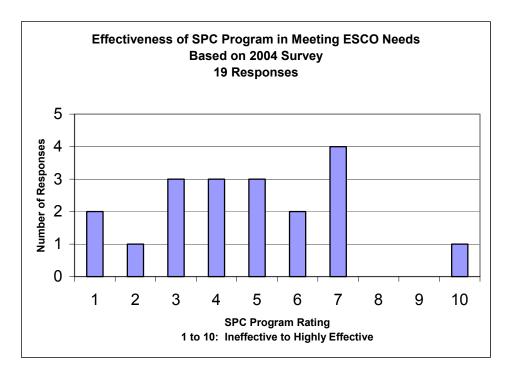


ITEM 6: UTILITY PROGRAMS

The Investor Owned Utilities (PG&E, SCE, SDG&E) have had incentive programs for energy efficiency projects. Please rate the effectiveness of the Standard Performance Contracting Program's (SPC) ability to meet your company's needs.

The SPC Program is a major utility incentive program—typically used by medium to large commercial customers. Unlike the regular rebates, the program pays based on "actual" energy savings achieved. This can be determined based on engineering calculations, the utility's pre-determined value for the energy project savings, or through monitoring and verification of the installed measure by the applicant. Applying to the SPC program is complex, and requires multiple steps and forms. Due to these complexities, commercial customers often hire ESCOs to complete the required documentation and help them through the process.

We asked ESCOs to rate the effectiveness of the SPC program in meeting their company's needs. On a scale from one to ten, with ten being highly effective, the average rating from the respondents was 4.7. Firms that gave a rating of less than five tended to participate less in the SPC Program when compared to those that gave the program a higher rating.

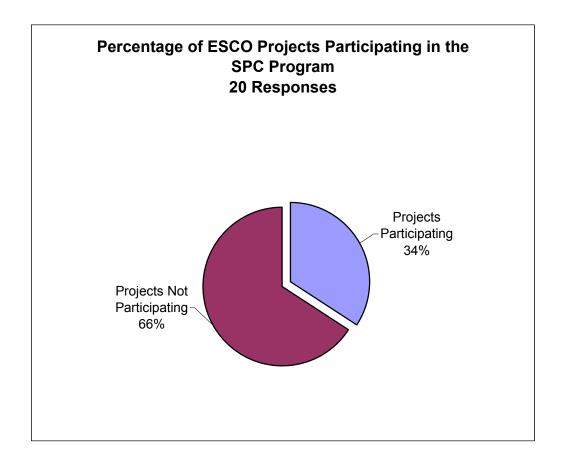


In the Energy Commission's 1999 survey, nearly half of the respondents believed that the SPC program was a fair to good program.

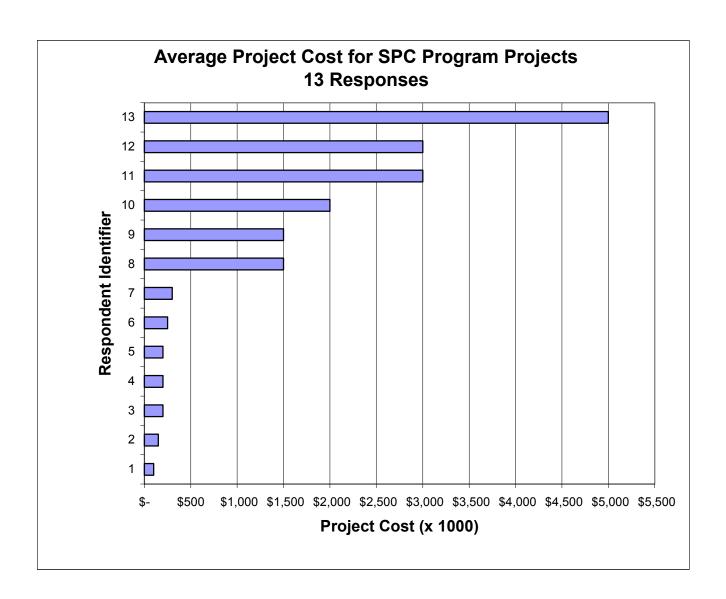
ITEM 7: SPC PROGRAM PARTICIPATION

What percentage of your projects participated in the SPC Program and what was the average project cost?

Most ESCO-sponsored projects do not participate in the SPC Program. According to the survey, ESCOs applied to the SPC program for about one third of their project recommendations.



The average cost of ESCO projects participating in the SPC Program ranged from \$100,000 to \$5 million, with an average cost of \$1.3 million. The following graph shows the distribution of project cost as identified by respondents.



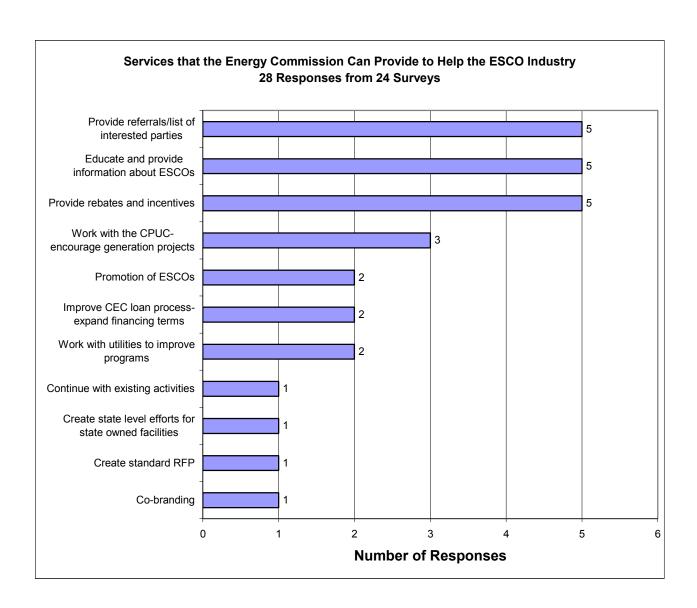
ITEM 8: ENERGY COMMISSION SERVICES

About 50 percent of our loan funds have been used to finance projects identified by ESCOs. Beside the loan program, what other services can we provide to help your industry?

The most desired services to help the ESCO industry are to provide rebates and incentives for energy efficiency projects, educate public agencies and others about ESCO services and provide referrals and/or list of potential projects to ESCOs. Of these services, educating the public, providing the public with a list of ESCOs doing business in California and providing lists of public agencies that have used ESCOs are areas that the Energy Commission can help. The Energy Commission staff plans to update the How to Hire an Energy Services Company handbook to ensure that it contains current information.

In the 1999 survey, educating and informing the public was also one of the major areas that ESCOs believe that the Energy Commission can help and the handbook was identified as a good resource for the public.

The following chart shows the range of services that the Energy Commission can provide to help the ESCO industry. Some respondents identified multiple services. This is the reason why the number of responses exceeds the number of surveys returned.



Appendix A Energy Services Provider Survey

California Energy Commission Energy Services Provider Survey

An Energy Services Company (ESCO) is a single firm that manages and coordinates <u>all</u> phases of an energy project and provides many types of services.

1.	What services does your company provide? Check all that apply.
	□ Energy audit
	□ Engineering design
	☐ Construction management
	☐ Project management
	☐ Equipment installation
	□ Design-build projects
	□ Commissioning
	☐ Project financing provided directly from our firm
	$\hfill \Box$ Assistance in helping secure appropriate project funding for our customers from other lenders or lease markets
	☐ Project measurement, verification and evaluation
	☐ Guarantee of energy savings
	☐ Equipment maintenance and operations
	□ Other: Specify
2.	What services do your customers most often request?

3.	What percentage of your business comes from the following sure the sum of all categories total 100 percent.	j – please make						
	Federal Government	%						
	State Government	%						
	Local Government	%						
	Schools (K-12 and Colleges)	%						
	Large commercial businesses	%						
	Small commercial businesses	%						
	Industrial facilities	%						
	Agriculture related activity	%						
	Electric and gas utility	%						
	Other	%						
	If you placed a percentage in "other", please specify:							
pro pe the pro	e are updating our list of ESCOs serving California customers ovide most of the services listed in Question 1 and often guar rformance of the project (e.g., the energy cost savings will be project debt). In contrast, an engineering consultant firm do bject performance or savings.	rantees the e adequate to pay						
4.	Check each box that best describes your core business.							
	☐ We are an ESCO (performance contractor)							
	☐ We are an architectural and engineering firm (A/E)							
	☐ We are an equipment supplier							
	☐ We maintain energy using equipment							
	☐ Other - Please specify:							

The Investor Owned Utilities (PG&E, SCE, SDG&E) have had incentive programs for energy efficiency projects. Please rate the effectiveness of the Standard Performance Contracting Program's (SPC) ability to meet your company's needs.										
10 (Highly		8	7	6	5	4	3	2		
What percentage of your projects has participated in the SPC Program and what was the average project cost? • Percentage of your projects that participated in										
the SF	PC Progra	m							%	
	ge project	cost of S	SPC proj	ect			\$			
Avera		of our lo			been us	ed to fin nat othe				

THANK YOU VERY MUCH FOR TAKING THE TIME TO COMPLETE THIS SURVEY.

Please e-mail your response by September 10, 2004 to Judy Brewster at jbrewste@energy.state.ca.us. If you have any questions, call Judy at (916) 654-4053.

Appendix B

List of Energy Services Companies Serving California According to Survey Results

List of ESCOs Serving California According to Servey Results

Organization	Street	City	State	Zip	Telephone	Web Page
Aircon Energy	4234 N. Freeway Boulevard, Suite 100	Sacramento	CA	95834	(916) 922-2004	airconenergy.com
Ameresco	4133 Mohr Avenue. Suite D	Pleasanton	CA	94566	(925) 426-3024	ameresco.com
Ameresco	2603 Camino Ramon, 2nd Floor	San Ramon	CA	94583	(925) 242-2533	ameresco.com
Ameresco	4445 East Gate Mall, Suite 200	San Diego	CA	92121	(858) 812-2083	ameresco.com
Cal-Air Inc.*	4061 Seaport Boulevard	West Sacramento	CA	95691	(916) 374-4517	www.calair.com
Cal-Air Inc.*	12393 Slauson Avenue	Whittier	CA	90606	(562) 464-6139	www.calair.com
Carrier Corporation	1431 N. Market Boulevard, Suite 4	Sacramento	CA	98534	(916) 928-9500	www.carrier.com
Chevron Energy Solutions	345 California Street, 32nd Floor	San Francisco	CA	94104	(415) 733-4629	www.chevronenergy.com
Enerpath, Inc.	1758 Orange Tree Lane	Redlands	CA	92373	(909) 335-1699	www.enerpath.com
EnSave Energy Performance, Inc.	65 Millet Street, Suite 105	Richmond	VT	05477	(802) 434-3792	ensave.com
Green Tech Energy Services	520 Fellowship Road, Suite D-401	Mt. Laurel	NJ	08054	(856) 439-9400	www.greentechenergy.com
Honeywell Bldg & Energy Solutions	6 Centerpointe Drive	La Palma	CA	90623	(760) 722-8222	www.honeywell.com/buildingsolutions
Johnson Controls, Inc	5770 Warland Drive, Suite A	Cypress	CA	90630	(562) 799-8882	www.jci.com
Johnson Controls, Inc	3526 Breakwater Court	Hayward	CA	94545	(510) 783-4000	www.jci.com
Johnson Controls, Inc	3065 Kilgore Road	Rancho Cordova	CA	95670	(916) 983-2276	www.jci.com
Johnson Controls, Inc	9550 Ridgehaven Court	San Diego	CA	92123	(619) 560-9966	www.jci.com
Kinetic Systems, Inc.	7 Marconi	Irvine	CA	92618	(949) 614-7073	kineticsgroup.com
Noresco	17671 Cowan, Suite 206	Irvine	CA	92614	(949) 253-3533	www.noresco.com
Noresco	92614 Haven Avenue, Suite 230	Rancho Cucamonga	CA	91730	(909) 484-3900	www.noresco.com
Noresco	3111 Fite Circle	Sacramento	CA	95827	(916) 366-7180	www.noresco.com
Noresco	100 Produce Avenue, Suite L	San Francisco	CA	94508	(650) 589-3700	www.noresco.com
Onsite Energy Corp.	2701 Loker Avenue West, Suite 107	Carlsbad	CA	92008	(760) 931-2400	<u>onsitenergy.com</u>
Onsite Energy Corp.	2303 Camino Ramon, Suite 280	San Ramon	CA	94583	(923) 358-4260	<u>onsitenergy.com</u>
Parke Industries	2247 Lindsay Way	Glendora	CA	91740	(909) 394-0230	parkeindustries.com
Sempra Energy Solutions	101 Ash Street, HQ-09	San Diego	CA	92101	(619) 696-3007	semprasolutions.com
Servi-Tech Controls, Inc.	2480 South Cherry Avenue	Fresno	CA	93706	(559) 264-6679	servi-techcontrols.com
Siemens Building Technologies	25821 Industrial Boulevard, Suite 300	Hayward	CA	94545	(510) 723-7800	<u>us.sbt.siemens.com</u>
Siemens Building Technologies	10775 Business Center Drive	Cypress	CA	90630	(714) 761-2200	<u>us.sbt.siemens.com</u>

^{*} Acquired by Johnson Controls, Inc.